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QUESTIONS

OF THE

BOARD OF HEALTH,

IN RELATION TO

MALIGNANT CHOLERA,

WITH

THE ANSWERS

OF THE

SPECIAL MEDICAL COUNCIL;

TOGETHER WITH

A REPORT

UPON THE CAUSES OF THE CESSATION OF CHOLERA

AT

BELLEVUE.

Published by Order of the Board of Health.

NEW-YORK :
PRINTED BY PETER VAN PELT.

1832.



The Special Medical Council, to whom was referred the communication of your honorable Board, proposing certain queries, to which an answer¹ was requested, beg leave to report the following answers :—

QUESTION I.

Whether the Malignant Cholera, as it now exists in the city of New-York, can be prevented by sanitary or Quarantine regulations ?

From the limited period during which we have had an opportunity of acquiring from our own observation, a knowledge of the laws which govern the Malignant Cholera, we are reluctant to express an opinion upon this subject. But inasmuch as that duty is enjoined upon us, we beg leave to say, that many statements, apparently entitled to credit, have been made, which go to show that the disease is transmissible from one place to another, by persons affected with it. Until these facts can be thoroughly investigated, the Council are unwilling to put forth an opinion which would be at variance with the great weight of medical authority on the subject; at the same time, we feel bound to declare our conviction, that no Quarantine regulations, hitherto employed or known to us, have been, or, we fear, are likely to be effectual in excluding the Malignant Cholera, from any populous town or village on this continent.

QUESTION II.

When it comes, what are the best means to mitigate its malignancy ?

On the part of the authorities, the strictest attention should be given to the removal of all the common causes of disease; all local sources of impure exhalations, such as privies, sinks, sewers, pools of water, should be cleansed; the dwellings of the poor should be thoroughly cleansed and

whitewashed ; they should be prevented from congregating in large numbers ; and crowded houses should be emptied, and the inhabitants placed in clean and airy situations ; the sick should at once be removed to large and airy hospitals.

On the part of private individuals, the mode of life should be strictly temperate, and no excess should be indulged in.

The food should be nutritious, simple and easy of digestion, and in sufficient quantities to preserve a healthful vigour ; any article of diet that is known to be easily susceptible of fermentation, in the stomach or bowels, should be scrupulously avoided ; so readily is the digestive process disturbed during the epidemic prevalence of Malignant Cholera, that with us, no fruits or any other than simply farinaceous vegetables can be eaten with safety.

The destructive tendency of the disease may be further mitigated, by the early discovery and judicious treatment of such symptoms as are known to precede it, and give warning of its approach. These vary in degree, but all evince more or less disorder in the digestive organs. The milder forms of these premonitory symptoms are merely an uneasiness or pain in the bowels, accompanied sometimes with slight cramps, or dizziness ; but a looseness of the bowels or diarrhœa is by far more common, and an almost invariable precursor of the disease itself. It has been found with us, that this diarrhœa is successfully treated by purgatives, and especially by calomel ; and that it cannot be neglected without imminent danger—if neglected, the Cholera is its usual sequela.

QUESTION III.

When it comes, what are the best means to protect life against its attack ?

The disease is characterised by vomiting and purging of a fluid almost colourless and inodorous, together with cramps or spasms of the extremities—the strength of the patient is rapidly exhausted—a failure of the natural heat of the body, and of the circulation of the blood soon occurs, constituting the dangerous stage of collapse. A striking

feature in the character of this disease, is a complete suspension of many of the secretions, especially of bile and urine.

It is in the first place important to allay the vomiting and spasms of the stomach. If the subject be of a constitution not enfeebled by previous disease, or habitual intemperance, and the pulse is in a condition to admit of it, general blood-letting is found to mitigate the spasms and render the system more susceptible to the action of the grand remedy, Mercury. A large dose of Calomel, alone or combined with two grains of Opium, if the cramps be distressing, with the application of a large sinapism over the region of the stomach, relieves vomiting, and, especially after blood-letting, sometimes arrests the disease. Effervescing draughts, small portions of ice chewed and swallowed, or minute doses of Tincture of Camphor quiet the stomach. The dose of Calomel should be repeated at intervals of one, two, or three hours, until the colourless evacuations assume a dark or bilious hue. In the interim, (if the pulse become very feeble or the extremities cold, with a sunken aspect of the eye,) frictions with rubefacients should be employed to allay the cramps, and means of preserving the heat of the extremities should be employed; for which purpose, bags of hot sand answer the best purpose, dry heat being found preferable to its combination with moisture. If the skin be covered with copious clammy perspiration, hot powdered chalk should be well rubbed over the body. If the pulse become feeble or the extremities cold, indicating the approach of the state of collapse, much benefit has been derived from rubbing the whole body, especially the extremities, with an ointment composed of two parts of strong mercurial ointment with one of finely powdered camphor, and the same quantity of Cayenne pepper.

The internal use of calomel is combined with this external medication, and when the mouth becomes sore or the discharges bilious, from the operation of mercury, the patient is comparatively safe. Hot injections of brandy and water, in large quantities and frequently repeated, are also important means of preventing the collapse.

This active treatment frequently restores the circulation and the lost heat of the body, and reaction follows. Frequently, but most rarely under the mercurial treatment, secondary fever succeeds. This is characterised by determinations of blood to some important organ, as the brain, the lungs, or the liver, and is successfully treated by bleeding, general or local, according to the indications of the case ; by purgatives, and small doses of nauseating medicines.

QUESTION IV.

What regulations, especially in warm climates, should be adopted in relation to the dead ?

In general, putrefaction occurs more slowly after death from this than from other diseases. There need therefore be no precipitation in the burial of the dead, and sufficient time may safely intervene to make the death unquestionable. The apartments of the dead should be purified by the extrication of chlorine gas, but more especially by thorough ventilation ; and the floors should be washed with ley.

The corpse should be covered with a cloth wet with a solution of chloride of lime.

ALEX. H. STEVENS, PREST.
JOS. BAYLEY,
W. J. MAC NEVEN,
JNO. NEILSON,
GILBERT SMITH,
H. McLEAN,
R. K. HOFFMAN,
ANTHY. L. ANDERSON.

The Committee appointed in pursuance of a resolution of the Board of Health, for the purpose of inquiring into the circumstances which have put a stop to the prevalence of Cholera at Bellevue, with the utmost satisfaction

REPORT:

That the medical officers of the Bellevue establishment, in all its departments, have taken the most efficacious measures, as well as most fortunate in their results, for enforcing among all the persons under their charge, an undeviating attention to the recommendation so earnestly enjoined by the Special Medical Council, of making known, at the first onset, the forwarning symptoms of Cholera, and of obtaining immediate medical assistance. It is to the good judgment and laudable assiduity of the indefatigable Superintendant, and those medical officers, in carrying the injunctions of the council into effect, that your committee attribute, in part, the happy change which has taken place.

No longer confiding to the inmates of the Bellevue establishment, the care of reporting their own illness, the medical officers themselves go round daily, and question every person individually, and whenever diarrhœa is detected, medical treatment is ordered on the spot. From twenty to thirty such cases are prescribed for every day, and it is the impression of the officers, that many of those cases, if neglected, would still pass into Malignant Cholera.

The same medical police is observed on Blackwell's Island, and the Penitentiary prisoners residing there, are daily paraded, questioned, examined and inspected, and if any are found to present the premonitory symptoms, they receive instant medical treatment. Will it be believed, that all this vigilance, which has only their own safety for its object, requires to be supported by a degree of constraint?

Coincident with the strict enforcement of this system, the disease has been seen to decline, and at last to cease.

We are of opinion, that one of the causes of its decline, may also be found in the effect of habitude, the inmates of that establishment being in the state of acclimated persons.

In the building called the Fever Hospital, containing at present, one hundred and fifty-two patients, the resident physician prescribes for six or seven daily, who are laboring under bowel complaints—and the physician in the Alms-House for eight or ten, among a population of six hundred, although the greater portion of those predisposed to disease of the bowels, have been already carried off by the epidemic.

It appears inconceivable that persons should be so negligent of their own welfare, as to slight this warning diarrhœa, although they have been so often told that it is the first stage of the fatal cholera. Something like an explanation of it may be found in the fact, that looseness of the bowels is the endemic disease of the Bellevue establishment, as it is of all places, when the inmates are much confined, and always fed with the same food. A slight looseness, giving no pain, and to which they are accustomed, gives no alarm. Thus the first stage passes over unnoticed, and the stage of collapse has begun before the distemper has been recognized. To this circumstance, we must in part, ascribe its fatality at the commencement. An irregular state of the bowels is also a disease that frequently carries off old and infirm people. It is in some sort natural to them, so that when the poison of the Malignant Cholera is superadded, it is not surprising that they should sink rapidly.

The entire cessation of the disease at Bellevue, without the cause having been vanished or exhausted itself, in consequence of those measures *only* of precaution and care, which in like manner and in other places, and in other hands, has been so successful when applied in time, is highly encouraging.

The whole number of the inhabitants of the Bellevue establishment is fourteen hundred persons.

All which is respectfully submitted by your Committee.

W. J. MAC NEVEN,
JOS. BAYLEY,
ANTHONY L. ANDERSON.

WHEREAS, The Board of Health deem it a duty to put their fellow-citizens in possession of every information within their power, that relates to the pestilence of Malignant Cholera which still afflicts us:—*therefore Resolved*, That the Special Medical Council be, and they are hereby respectfully requested to answer fully and in detail, and in writing, for the purpose of publication, the following questions:—

QUESTION I.

Are there, in all cases, and without any exceptions, premonitory or warning symptoms of the approach or danger of Malignant Cholera: if there be exceptions, what proportion do such exceptions bear to a given number?

QUESTION II.

What are the different premonitory or warning symptoms of the approach or danger of Malignant Cholera; and what symptoms are the most marked and usual? Specify such symptoms in the ordinary common terms, as well as in terms which are technical or professional.

QUESTION III.

If during the premonitory or warning stage of Malignant Cholera, a Physician acquainted with its action upon the human frame, be called to the patient, what proportion of a given number of persons of ordinary constitutions, can, by known and certain medical means, be secured against death by the threatened attack?

QUESTION IV.

What proportion of cases of neglected Diarrhœa have terminated in Malignant Cholera during the present season? And what proportion of those were intemperate?

QUESTION V.

What measures, in the judgment of the Special Medical Council, are the best to guard against the attack of Malignant Cholera? Specify them especially as relates to diet,

temperance, clothing, sleeping, labour, exercise, exposure, and the like, to the end that the same may be laid before our fellow-citizens, for their government, and the safety of themselves and their families.

QUESTION VI.

What measures, in the judgment of the Special Medical Council, ought to be taken by our fellow-citizens, who are absent from their homes, to purify and render healthy their dwellings, before their families return ?

LASTLY,

If the whole body of the people could be swayed by a great moral principle, and scrupulously and rigidly observe all the means of protecting life, can Malignant Cholera, like the small pox, by human means, (those means, of course, directed by Providence,) be driven from our city ?

The Board of Health is aware of the delicacy and difficulty involved in their last question. The Special Medical Council have had but a short period to watch the movements, or to examine the nature of this hitherto, with us, unknown disease. The Board of Health therefore submits to their Special Medical Council, the question, but leaves it entirely to them, how far they can, at this time, discreetly return an answer thereto.

To the questions proposed by the Board of Health, the Special Medical Council have the honour to reply.

Answer to Question I.

There are almost universally, symptoms premonitory of the attack of Cholera. The number of exceptions is exceedingly small. The actual proportion the exceptions bear to the whole number, cannot be ascertained; but it is probable that in forty-nine cases out of fifty, some premonitory symptoms do occur.

Answer to Question II.

The most marked and universal of the symptoms premonitory of the approach of cholera, is diarrhœa, or a loose and relaxed state of the bowels, attended with frequent loose or watery discharges. These discharges are sometimes of an unhealthy character, as of a black colour, or like dirty water, when they involve a disordered state of the stomach and liver, as well as the bowels, or they may arise from simple irritation, or increase of the natural action of the bowels. In the latter case, the discharges are merely thin or liquid, but otherwise of a healthy character. The first is the severest form of the two. In other cases, the premonition consists merely of slight pain or uneasiness of the bowels, with discharges of wind.

Answer to Question III.

If proper medical advice were taken, and judicious application of medicine made upon the first slight appearances of disorder of the stomach and bowels, ninety-nine persons in a hundred, of temperate habits and ordinarily good constitutions, would be safe from the attack of malignant cholera. That is to say, the number of deaths from Cholera, if the disease were uniformly prescribed for in the stage of diarrhœa, would be exceedingly small.

Answer to Question IV.

A very large proportion. Among the intemperate, the proportion is believed to have been the greatest.

Answer to Question V.

The following measures or rules appear to your Council, to be the most important to be observed, in order to prevent an attack of cholera.

In regard to DIET.—The diet should be simple, and should consist of food which is both nutritious and easy of digestion. In quantity there should be no excess ; in quality, it should be that which gives the greatest strength, with the least fatigue to the digestive organs. It is also important to be remarked, that too great abstinence is as dangerous as any form of excess ; and that the diet should be better and not more sparing than usual.

The most nutritious and digestible articles are beef, mutton, or chickens, plainly cooked ; eggs slightly cooked, bread made of wheaten flour, mealy potatoes and rice. We fear that this list could not be much extended, without introducing articles that would be found less wholesome.

Among articles wholesome in any common season, but found to predispose to attacks of Cholera in this city, are all common green garden vegetables and fruits. There can scarcely a vegetable be named, that will not be found among those which have been reported to your honourable Board as having been the cause of Cholera. Beans, peas, peaches, whortleberries, raspberries, cucumbers, cabbage, puddings containing raisins, and pies made of fruit have each been specified as the exciting cause of Cholera, in a greater or less number of cases.

In regard to temperance, we can only say, that the slightest excess at this time, either in eating or drinking, appears, from much experience, to be attended with great danger.

The clothing should be warm ; it should be so regulated, as to prevent the danger of a chill, and at the same time, not to exhaust the system by excessive perspiration. The covering should be particularly warm about the bowels, and flannel worn next the skin.

The regular hours of sleep should be, as far as practicable, observed ; and the body should by no means be exposed, during sleep, to a draught of night air.

Labour and exercise should be moderate ; and taken, as far as possible, neither in the heat of the day nor in the night air—nor should any fatiguing or exhausting labour be performed when the stomach is empty.

A state of debility, arising either from excess or inanition, want of rest or anxiety, is especially prone to invite an attack of this disease. It is therefore in the highest degree important, that all nurses or other persons, who watch with or attend the sick, especially if at houses where the disease has occurred, should guard themselves against this unavoidable exposure, by not suffering their stomachs to become empty, and their strength to be thus exhausted. It is also of course evident, that grief, anxiety, and all depressing passions, must operate upon the empty and exhausted system with redoubled force.

In regard to intemperance, it is now universally known, that Cholera has a most peculiar affinity for the system of a drunkard ; so much so, that it is a very rare thing for the intemperate to escape—generally speaking, it is almost as rare for the temperate and uniformly prudent to be attacked.

Answer to Question VI.

The measures necessary to be taken by those returning to houses that have been for some time closed, are few and simple.

Let every door and window be thrown open, and kept open through the day. Let small fires be made in all rooms that are to be occupied at night. Let all wood-work be thoroughly scoured, and walls whitewashed. In three days it will be safe to occupy the house, if it be in a healthy situation. If the house be old or dirty, or in a sickly neighbourhood, or if there have been sickness or death in it, previously to using the above precautions, let it be filled with chlorine gas, or frequently sprinkled with the disinfecting solutions which are every where to be had. Let this process be continued for three days, the house being closed if chlorine be used, and the floors sprinkled several times daily if the liquids be used.

Let all privies and out-houses be also most carefully cleansed and purified, either with lime, chloride of lime, or strong ley.

With the use of these precautions, your Council believe there is no danger in occupying any house, however long it may have been closed.

Answer to Question VII.

The grand result embraced in this question, involves, we fear, several impossibilities; for the mass of mankind are, and there is great reason to fear, ever will be, insensible to the operation of great moral principles.

As the attacks of Cholera are brought on, for the most part, by incurable follies, and imprudence, we despair of expelling it from our city, while the present predisposition to that disease exists.

Still there is no reason to doubt, that among the decent and orderly portion of the community, an exemption from an attack of Cholera may be obtained in a great degree, by a strict and prudent attention to the rules above laid down.

ALEX. H. STEVENS, *President.*
 JOS. BAYLEY,
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